U.S. SENATE
Established 1947
Republican Policy Committee

June 12, 2003

Maintaining the Nation's Hydropower Resources

Introduction

With all the talk of the need for the United States to develop additional sources of electrical capacity, Congress should keep in mind that there is also a need to *maintain existing capacity*, including that provided by the nation's considerable hydroelectric resources. Yet, much of the nation's existing hydroelectric generation capacity is in danger of being lost as a result of the tremendously complex relicensing process, which is both too lengthy and too costly.

An example of the critical need to maintain hydroelectric capacity was provided by the recent California energy crisis. A three-year drought, which severely reduced hydroelectric generation in the West, was a significant factor in the rolling blackouts of 2001.[1] That example alone should be sufficient to convince Congress to reform the dysfunctional licensing process.

Section 511 of the Energy Policy Act of 2003 (S. 14), which is currently being debated in the Senate, does just that. It balances the needs of all public interests, as required by law, not just certain politically favored interest groups, and it reduces costs and streamlines the process. It does not reduce the ability of any public interest to participate in the licensing process, nor does it compromise in any way existing environmental standards.

Over the next decade, the Federal Energy Regulatory Commission (FERC) will process 218 relicense applications of non-federal hydro projects that were initially licensed 30 to 50 years ago. The projects account for about 20 percent of the nation's installed hydroelectric capacity. Thirty-nine of those projects, or 20 percent, are located in the northwest.[2] If the licensing process is not reformed, much of this critical capacity could be lost. Indeed, between 1987 and 1997, nearly 10 percent of the

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[1]Jerry Taylor and Peter VanDoren, "California's Electricity Crisis: What's Going On, Who's to Blame, and What to Do," *Cato Policy Analysis No. 406*, July 3, 2001.

[2]J. Mark Robinson, Testimony before the House Committee on Energy and Commerce, March 12, 2003.

nation's hydroelectric capacity was lost during project relicensing due to the overly costly and cumbersome process.[3]

Many States Are Heavily Dependent on Hydroelectricity

Many states depend heavily on hydropower for their electricity needs. Four states depend on hydroelectric power for most of their electricity needs, including Idaho (92 percent of its net electricity generation comes from hydro), Washington (more than 74 percent), Oregon (more than 73 percent), and South Dakota (nearly 60 percent). Hydropower also accounts for significant portions of the electricity generated in several other states, such as California, Maine, Montana, Pennsylvania, and New York (Energy Information Administration, 2002).[4]

The Benefits of Hydroelectric Power

Hydroelectric power is the nation's leading source of emissions-free, renewable energy, and provides other benefits as well. Between 8 percent and 10 percent (depending on rainfall amounts) of the nation's electric-power generation comes from the nation's hydroelectric power plants. All other renewable energy sources combined account for only 2 percent of the nation's power generation.[5]

Not only do hydropower projects produce electricity, but many also serve as water storage facilities. The Lake Oroville reservoir, for example, stores and delivers water to more than two-thirds of California's population and to almost one million acres of farmland. In addition, other important benefits of hydro include reliability of the transmission, clean air, recreation, and flood control.

The Complex Licensing Process

According to the General Accounting Office, the licensing process "is far more complex, time-consuming, and costly today than it was when FERC issued the approximately 1,000 original hydropower licenses 30 to 50 years ago," and "FERC faces a formidable challenge in issuing a license that is legally defensible, scientifically credible, and likely to protect and enhance fish, wildlife, and other resources while still preserving hydropower as an economically viable energy source."[6]

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[3]Idaho National Engineering Laboratory, U.S. Department of Energy, *Hydropower Resources as Risk: The Status of Hydropower Regulation and Development – 1997*, September, 1997.

[4]Energy Information Administration, *Renewable Energy Annual 2001*, November 2002.

[5]Energy Information Administration.

[6]Barry T. Hill, Government Accounting Office, "Licensing Hydropower Projects: Better Time and Cost Data Needed to Reach Informed Decisions About Process Reforms," *Testimony before the House Subcommittee on Energy and Air Quality*, June 27, 2001.

In testimony before the House Subcommittee on Energy and Air Quality earlier this year, the director of FERC's Office of Energy Projects, Mark Robinson, noted, "Relicensing of projects, upon expiration of the current license, is of particular significance because it involves projects that originally were licensed up to 50 years ago. In the intervening years, enactment of numerous environmental, land use, and other laws, as well as judicial interpretation of those laws, have greatly affected the Commission's ability to control the timing and conditions of the licensing process."[7]

As part of the licensing requirements, FERC since 1986 has been required to give "equal consideration" to developmental and non-developmental values, including power generation, irrigation, flood control, navigation, municipal water supply, recreation, and environmental values such as protecting and enhancing fish and wildlife populations.[8] Since then, the courts have reinterpreted the Federal Power Act, authorizing federal natural resource agencies, such as the Departments of Interior and Commerce, to set mandatory conditions on hydroelectric licenses. This prevents FERC from carrying out its statutory duty to balance different public interests. Effectively, the courts have tipped the balance in favor of environmental interests over other competing but equally important public interests. In his testimony, Robinson elaborated:

> For example, Section 4(e) of the FPA [Federal Power Act] authorizes federal land-administering agencies to provide mandatory conditions for projects located on federal reservations under their jurisdiction. Further, Section 18 of the FPA gives authority to the Secretaries of the Departments of the Interior and Commerce to "prescribe" fishways. And, Section 401(a)(1) of the Clean Water Act precludes the Commission from licensing a hydroelectric project unless the project has first obtained state water quality certification, or a waiver thereof.
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> The Commission also must ensure compliance with other statutes, including the Coastal Zone Management Act, Endangered Species Act (ESA), Federal Land Policy and Management Act, Wild and Scenic Rivers Act, National Historic Preservation Act, and Pacific Northwest Electric Power Planning and Conservation Act, each with its own procedural and substantive requirements. Compliance with all these requirements involves a multitude of different processes ancillary to licensing, which has lengthened the time required to obtain a license.[9]

As a result of the dizzying array of public interests that must be taken into account and the number of entities involved, the licensing process now takes between 8 and 10 years and millions of dollars to complete. This is a problem that must be remedied.

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[7]Robinson.

[8]Robinson.

[9]Robinson.

The Solution

To restore that balance, Section 511 of the Energy Policy Act of 2003 makes several simple common-sense changes to the process. First, once mandatory conditions are drafted, the section provides for a public agency hearing on any "disputed issues of material fact."

Second, the section allows the licensee to propose alternative conditions that would either reduce cost, save energy, or both. If the relevant natural resource agency determines that the licensee's alternative proposal would indeed reduce costs or save energy, while meeting existing statutory requirements for environmental protection, then the agency must accept the alternative.

This provision corrects a major imbalance in the current process. Currently, federal resource agencies can dictate conditions that affect the continued viability of a project without having to consider those consequences. Section 511 allows licensees to propose conditions that would also protect natural resources but would be less expensive or preserve power values. Moreover, this provision does not limit the ability of other parties to petition the Commission to "beef-up" mandatory conditions that the federal resource agencies issue if those parties believe the conditions to be inadequate to protect the resource. Nothing now prohibits the Commission from strengthening mandatory conditions, and Section 511 does nothing to change that fact. Indeed, Section 511 restores the required balance among different public interests while maintaining current environmental standards and reducing the costs.

Third, the section requires the natural resource agencies to document that "equal consideration" was given to economic, environmental, and other public impacts before imposing mandatory conditions. Currently the agencies are not doing this, so it is impossible to determine whether they are complying with the law.

Fourth, the section provides for a non-binding dispute resolution process should FERC determine that the mandatory conditions are inconsistent with requirements under the Federal Power Act.

Objections to Hydroelectric Licensing Reform Are Unfounded

Opponents to hydroelectric licensing reform offer three main objections.

- First, they argue that the new dispute resolution process is an exclusive "appeal" for license applicants if an alternative condition is rejected, which would further contribute to delays in the licensing process.

This charge is unfounded. Although the process may add a few months at the front end of the licensing process, it surely would eliminate years of litigation and delay at the back end of the process by having worked out the "disputed issues of material fact" early on. The suggestion that Section 511 allows license applicants to appeal the rejection of their alternative condition during the public agency

hearing is wrong. Appeals come at the end of the licensing process after a final license is issued. More importantly, appeals are available to all parties to the proceeding.

- Second, opponents argue that the section would lower standards for environmental protection.

This charge is untrue. Section 511 fully preserves the statutory authority of natural resource agencies to impose license conditions to protect the environment and natural resources. It merely requires those agencies to accept alternative conditions that would either lower costs and/or increase energy savings while meeting *the same* environmental standards.

- Third, opponents argue that the section denies third parties, such as Indian tribes, states, consumer groups, and environmentalists from fully participating in the licensing process.

Again, Section 511 fully preserves third-party participation. In fact, third parties have seven distinct opportunities for public participation in the hydro licensing process, which would be *unaffected* under Section 511. The section merely gives the licensee the same rights as third-party participants.

Conclusion

Maintaining the nation's hydroelectric generating capacity is crucial to President Bush's goal to provide an energy system that delivers affordable and reliable energy to the American people. The current licensing process endangers the nation's existing hydropower. The common-sense reforms found in Section 511 of S. 14, as reported, would remedy the situation and restore rationality and affordability to the process.

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